

I CLAIM:

1. A method for identifying metastatic potential of a prostate cancer cell, said method comprising the step of:

5 detecting expression of a MUC18 coding sequence in a prostate cancer cell for which an identification of metastatic potential is sought relative to expression of a MUC18 coding sequence in a normal prostate cell, wherein a higher level of expression of the MUC18 coding sequence is positively correlated with metastatic potential of a prostate cancer cell,

10 whereby metastatic potential of a prostate cancer cell is deemed high when the level of expression of a MUC18 coding sequence is higher in said prostate cancer cell than in a normal prostate cell.

2. The method of claim 1, wherein said prostate cancer cell is from a biopsy tissue sample from a patient for whom a prediction of metastasis of prostate cancer is sought.

3. The method of claim 1, wherein expression of MUC18 coding sequence is determined by immunoassay.

4. The method of claim 3, wherein expression of the MUC18 coding sequence is determined by immunoassay using antibody made in an experimental laboratory animal in response to a MUC 18 antigen.

- 20 5. The method of claim 4, wherein the MUC18 antigen is a middle portion of MUC18.

6. The method of claim 5, wherein said middle portion of MUC18 has an amino acid sequence as given in SEQ ID NO:2, amino acids 211-376.

- M A 2*
7. The method of claim 1, wherein expression of a MUC18 coding sequence is determined by Northern hybridization.
8. The method of claim 7, wherein a probe used in Northern hybridization comprises at least 15 contiguous nucleotides of SEQ ID NO:1.
- 5 9. The method of claim 8, wherein a probe used in Northern hybridization comprises a nucleotide sequence as given in SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:9, or SEQ ID NO:10.
- Dn 6 A 3*
10. The method of claim 1, wherein said expression of a MUC18 coding sequence is determined by a reverse transcriptase-polymerase chain reaction.
11. The method of claim 10, wherein a primer used in the reverse-transcriptase polymerase chain reaction comprises a nucleotide sequence as given in SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:9 or SEQ ID NO:10.
- SUB C 3*
12. The method of claim 1, wherein said prostate cancer cell is a cell line cell.
13. An immunoassay kit for diagnosing metastatic potential of a prostate cancer cell, said kit comprising an antibody made in response to immunization with an antigen consisting essentially of middle portion MUC18.
14. A nucleic acid vector comprising a nucleotide sequence encoding a middle portion MUC18 protein, said middle portion MUC18 protein consisting essentially of an amino acid sequence as given in SEQ ID NO:2, amino acids 211-376.
- 20 15. The nucleic acid vector of claim 14, wherein said vector comprises a nucleotide sequence encoding a middle portion MUC18 protein as given in SEQ ID NO:1, nucleotides 631-1128.

16. A recombinant host cell comprising the nucleic acid vector of claim 14.

17. A nucleic acid vector comprising a nucleotide sequence encoding a MUC18 protein, said MUC18 protein being characterized by an amino acid sequence as given in SEQ ID NO:2.

5 18. The nucleic acid vector of claim 17, wherein said nucleotide sequence encoding a MUC18 protein is as given in SEQ ID NO:1, nucleotides 1-1938.

19. A recombinant host cell comprising the nucleic acid vector of claim 17.

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